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10/080,977	02/21/2002	Atsushi Kanagawa	FUJO 19.465	9995

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EXAMINER

IQBAL, KHAWAR

ART UNIT PAPER NUMBER

2686

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/080,977

Applicant(s)

KANAGAWA, ATSUSHI

Examiner

Khawar Iqbal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 14-16 are rejected under 35 U.S.C. 102(b) as being unpatentable by Kabasawa (6111864).
3. Regarding claim 14 Kabasawa teaches a base station device (bs1), located adjacent to a base station (bs2) using a plurality of frequencies (A, B), that shares at least one of the plurality of frequencies, comprising (figs. 1,2, col. 1, line 60-col. 2, line 10) controlling means for performing a soft hand-off process if there is a hand-off from this base station to the adjacent base station when the shared frequency is used, and performing a hard hand-off process using the shared frequency if there is a hand-off from adjacent base station to this base station when a frequency other than the shared frequency is used in the adjacent base station (col. 1, line 60-col. 2, line 10, col. 3, lines 25-53).
4. Regarding claims 15-16 Kabasawa teaches a base station controller, connected to a plurality of base stations (fig. 2), for performing a soft hand-off with priority if there is

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a hand-off between the connected base stations and if communications conducted before and after the hand-off are controlled by this base station controller, comprising (fig. 2, col. 1, line 60-col. 2, line 10) controlling means for controlling, for at least one of the plurality of base stations, only communications conducted using a part of frequencies used by the at least one of the plurality of base stations, and allocating one of the part of the frequencies if there is a hand-off when a mobile station using a frequency that is not controlled by this base station controller in the at least one of the plurality of base stations moves to an area controlled by another base station to which this base station controller is connected (col. 1, line 60-col. 2, line 10, col. 3, lines 25-53).

5. Claim 17 is rejected under 35 U.S.C. 102(e) as being unpatentable by Loke (6728528).

6. Regarding claim 17 Loke teaches a base station device, that is used in a mobile communications system including a first base station device provided in a first wireless communications area to which at least the a frequency is allocated, a second base station device provided in a second wireless communications area to which at least a second frequency is allocated (fig. 2, col. 4, lines 17-36), a first controller accommodating the first base station device and a second controller accommodating the second base station device, and that is provided in a third wireless communications area which is adjacent to the first and second wireless communications areas and to which the first and second frequencies are allocated, wherein data are transmitted to and received from a mobile station using the first frequency under the control of the first

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controller; and data are transmitted to and received from a mobile station using the second frequency under the control of the second controller (col. 4, lines 17-36, col. 5, lines 12-37).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-13,18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loke (6728528) and further in view of Muszynski (5790528).

9. Regarding claim 1 Loke teaches a mobile communications system in which first and second frequencies are allocated to each wireless communications area, comprising (fig. 2):

a first base station device (B2) provided in a first wireless communications area (C2); a second base station device (BS1) provided in a second wireless communications area (C5) (col. 4, lines 17-36); a third base station device (B1) provided in a third wireless communications area (C1) adjacent to the first (C2) and second wireless communications areas (C5) (col. 5, lines 12-37); a first controller (BC1) accommodating said first base station (B2) device and controlling communications conducted by said third base station device (B1) using the first frequency (f1); and a second controller (BC2) accommodating said second base

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station (BS1) device (col. 4, lines 17-36, col. 5, lines 12-37) and controlling communications conducted by said base station device using the second frequency (col. 4, lines 17-36, col. 5, lines 12-37). Loke does not specifically teach controlling communication conducted by said third base station device.

In an analogous art, Muszynski teaches controlling communication conducted by said third base station device (fig. 2, col. 5, lines 65-col. 6, line 20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Loke by specifically adding features controlling communication conducted by said third base station device in order to improved system for handoff between different controllers as taught by Muszynsk.

Regarding claim 2 Loke teaches wherein when a mobile station using the first frequency in the first wireless communications area moves from the first wireless communications area to the third wireless communications area, said third base station device communicates with the mobile station using the first frequency (col. 4, lines 17-36, col. 5, lines 12-37).

Regarding claim 3 Loke teaches wherein when a mobile station using the second frequency in the first wireless communications area moves from the first wireless communications area to the third wireless communications area, said third base station device communicates with the mobile station using the second frequency (col. 4, lines 17-36, col. 5, lines 12-37).

Regarding claim 4 Loke teaches wherein when a mobile station using the first frequency in the third wireless communications area moves from the third wireless

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communications area to the first wireless communications area, said first base station device communicates with the mobile station using the first frequency (col. 4, lines 17-36, col. 5, lines 12-37).

Regarding claim 5 Loke teaches wherein when a mobile station using the second frequency in the third wireless communications area moves from the third wireless communications area to the first wireless communications area, said first base station device communicates with the mobile station using the first frequency (col. 4, lines 17-36, col. 5, lines 12-37).

Regarding claims 6 and 7 Loke teaches Lake does not specifically teach wherein said third base station device is connected to said first controller via a first transmission line and is connected to said second controller via a second transmission line. In an analogous art, Muszynski teaches wherein said third base station device is connected to said first controller via a first transmission line and is connected to said second controller via a second transmission line. (fig. 2, col. 5, lines 65-col. 6, line 20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Loke by specifically adding features third base station device is connected to said first controller via a first transmission line and is connected to said second controller via a second transmission line in order to improved system for handoff between different controllers as taught by Muszynski.

Regarding claims 8-10 Loke teaches a mobile communications system, comprising (fig. 2):

a first base station device provided in a first wireless communications area to which at least a first frequency is allocated; a second base station device provided in a second wireless communications area to which at least a second frequency is allocated; a third base station device provided in a third wireless communications area, which is adjacent to the first and second wireless communications areas and to which the first and second frequencies are allocated (col. 4, lines 17-36, col. 5, lines 12-37); a first controller accommodating said first base station device and controlling communications conducted by said third base station device using the first frequency (col. 4, lines 17-36, col. 5, lines 12-37); and a second controller accommodating said second base station device and controlling communications conducted by said base station device using the second frequency (col. 4, lines 17-36, col. 5, lines 12-37). Loke does not specifically teach controlling communication conducted by said third base station device.

In an analogous art, Muszynski teaches controlling communication conducted by said third base station device (fig. 2, col. 5, lines 65-col. 6, line 20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Loke by specifically adding features controlling communication conducted by said third base station device in order to improved system for handoff between different controllers as taught by Muszynsk.

Regarding claims 11-13 Loke teaches a mobile communications system, comprising (fig. 2): a first base station device provided in a first wireless communications area to which at least a first frequency is allocated (col. 4, lines 17-36,



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col. 5, lines 12-37); a second base station device provided in a second wireless communications area to which at least a second frequency is allocated (col. 4, lines 17-36, col. 5, lines 12-37); a third base station device provided in a third wireless communications area, which is adjacent to the first and second wireless communications areas and to which the first and second frequencies are allocated (col. 4, lines 17-36, col. 5, lines 12-37). Lake does not specifically teach wherein said third base station device is accommodated indifferent controllers. In an analogous art, Muszynski teaches wherein said third base station device is accommodated indifferent controllers (fig. 2, col. 5, lines 65-col. 6, line 20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Lake by specifically adding features wherein said third base station device is accommodated indifferent controllers for each allocated frequency in order to improved system for handoff between different controllers as taught by Muszynsk.

As to claim 18 it is considered the claim is rejected forth same reason as set forth in claim 1.

As to claim 19 it is considered the claim is rejected forth same reason as set forth in claim 1.


### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wallentin et al (6230013), Shin (6075990) and Kabasawa (5987013) teach provide a communication system and handoff control method that uses a virtual boundary in the operation of a multiple frequency base station.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL

  
8/23/07  
LESTER G. KINCAID  
PRIMARY EXAMINER